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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,643	10/12/2001	Anit Lohtia	NORT0092-US(13487RRUS01U)	2990

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EXAMINER

MURPHY, RHONDA L

ART UNIT PAPER NUMBER

2667

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,643

Applicant(s)

LOHTIA ET AL.

Examiner

Rhonda Murphy

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This communication is responsive to the amendment filed on September 27, 2005. Accordingly, claim 24 has been added and claims 1-24 are currently pending in this application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell et al. (WO 00/33498) in view of Forssell et al. (US 6,683,860).

Regarding claim 1, Forssell (WO 00/33498) teaches a method of performing communications in a wireless network, comprising: determining if a mobile station is subscribed to a first level of service or a second level of service (page 3, lines 29-35); communicating packet-switched traffic (page 1, lines 5-8); and releasing a logical connection between the mobile station and a wireless access system according to a first procedure if subscribed to the first level of service (page 17, lines 9-12 and page 18, lines 4-12; the service levels are described on page 3, lines 29-35 and page 11, lines 27-29) and according to a second, different procedure if subscribed to the second level of service (page 17, lines 33-37, page 18, lines 1-2).

Forssell (WO 00/33498) teaches different levels of service, but does not explicitly disclose the different levels of service with each procedure.

However, Forssell (US 6,683,860) teaches different service levels for logical connections and its release (col. 4, lines 39-46).

In view of this, it would have been obvious to one skilled in the art to modify Forssell's (WO 00/33498) method by providing different levels of service associated with the release of logical connections, in order to release the connections based on the type of service in use.

Regarding claim 2, Forssell (WO 00/33498) further teaches the determining, communicating, and releasing acts being performed by the mobile station (Fig. 5, page 17, lines 33-34)

Regarding claim 3, Forssell (WO 00/33498) further teaches releasing the logical connection comprises releasing a temporary block flow (page 17, lines 9-12).

Regarding claim 4, Forssell (WO 00/33498) further teaches releasing an uplink temporary block flow (page 17, lines 16-17).

Regarding claim 5, Forssell (WO 00/33498) further teaches the communication of packet-switched traffic comprises carrying the packet-switched traffic in one or more channels defined by a protocol selected from the group consisting of a General Packet Radio Service (GPRS) protocol, an Enhanced GPRS protocol, and a Global System for Mobile/Enhanced Data Rate for Global Evolution Radio Access Network (GERAN) protocol (page 1, lines 25-34).

Regarding claim 6, Forssell (WO 00/33498) further teaches providing a timer (page 11, lines 1-6); and if the mobile station is subscribed to the first level of service, starting the timer after detecting there is no further data to send (page 16, lines 15-20), wherein releasing the logical connection is performed after expiration of the timer (page 11, lines 3-6 and page 17, lines 9-12).

Regarding claim 7, Forssell (WO 00/33498) further teaches if the mobile station is subscribed to the second level of service, the logical connection is released in response to detecting there is no further data to send without use of the timer (page 17, lines 33-37, page 18, lines 1-2).

Regarding claim 8, Forssell (WO 00/33498) further teaches detecting if a send buffer is empty or is about to become empty (page 18, lines 8-11).

Regarding claim 22, the combined teachings of Forssell (WO 00/33498) and Forssell (US 6,683,860) teach the same limitations as described in the rejection of claim 1. Furthermore, Forssell (WO 00/33498) teaches a controller (Fig. 10, control unit 103) and an interface block to a wireless link to a wireless access system (Fig. 2).

Regarding claim 23, Forssell (WO 00/33498) further teaches the logical connection defined by a packet-switched wireless protocol selected from the group consisting of a General Packet Radio Service protocol, an Enhanced General Packet Radio Service protocol, and a Global System for Mobile/Enhanced Data Rate for Global Evolution Radio Access Network protocol (page 1, lines 25-34).

3. Claim 9 –21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell et al. (WO 00/33498) in view of Bourlas et al. (US 6,459,687).

Regarding claim 9, Forssell teaches a system for providing communications in a wireless network, comprising: a controller (Fig. 10, control unit 103); and wherein the controller operable to further determine when data transmission to the mobile station is about to end (page 21, lines 5-9), generating filler data to the first level of service to enable a wireless connection to the mobile station to be maintained (page 16, lines 31-36, page 17, lines 1-9).

Although Forssell teaches different levels of service (page 3, lines 29-35) and a controller that performs various functions within the mobile station (Fig. 10), Forssell does not explicitly disclose a controller operable to determine if a mobile station is subscribed to a first level of service or a second level of service.

However, it would have been obvious to one skilled in the art to realize a controller is capable of determining service levels associated with a mobile station, in order for the controller to perform various functions associated with the levels of service.

In addition, Forssell fails to explicitly disclose the controller adapted to generate filler data for sending to the mobile station.

However, Bourlas teaches a controller adapted to generate filler data for sending to the mobile station (col. 25, lines 37-56; a decision module (of base station) operable to determine if buffer contains data to fill downlink frame).

In view of this, it would have been obvious to one skilled in the art to include a controller for generating filler data to send to the mobile station, in order to maintain the logical connection with the mobile station.

Regarding claim 10, Forssell teaches a controller and generating filler data for a mobile station of a first level of service (represented by delay sensitive data, page 16, lines 28-36).

Forssell does not explicitly disclose not generating filler data for sending to the mobile station if the mobile station is subscribed to the second level of service.

However, it would have been obvious to one skilled in the art to realize the controller does not generate filler data for a second level of service, since the filler data is generated for the first level of service, so that the filler data is reserved for the first service level.

Regarding claim 11, Forssell teaches a timer and the generation of filler data.

Forssell does not explicitly disclose a timer to define a time period during which the filler data is generated.

However, since filler data is generated during a period of time, it would have been obvious to one skilled in the art to realize a timer is associated with the time the filler data is generated, so as to limit the period at which the filler data is produced.

Regarding claim 12, Forssell teaches a controller and the sending of filler data.

Forssell does not explicitly disclose the controller adapted to stop sending the filler data after the timer expires.

However, since filler data is sent during a period of time, it would have been obvious to one skilled in the art to realize the sending of filler data will cease after a period of time, in order to control the transmission of the filler data.

Regarding claim 13, Forssell further teaches the controller comprises a serving General Packet Radio Service support node control module (page 22, lines 9-10; Fig. 1b).

Regarding claim 14, Forssell further teaches the controller is adapted to determine end of data transmission by determining if a send buffer in a wireless access system is empty or about to be empty (page 18, lines 8-11).

Regarding claim 15, Forssell further teaches a storage module to store information pertaining to one or more characteristics of the send buffer (Fig. 10, memory 104), the controller adapted to determine if the send buffer is empty or about to be empty based on the one or more characteristics (page 18, lines 8-12).

Regarding claim 16, Forssell further teaches one or more characteristics comprise one or more of a size of the send buffer and a leaky rate of the send buffer (page 18, lines 8-12).

Regarding claim 17, Forssell further teaches the wireless connection comprises a temporary block flow (page 17, lines 9-12).

Regarding claim 18, Forssell teaches an article comprising at least a storage medium containing instructions (page 21, lines 35-38; page 22, lines 1-10) that when executed cause a core network system to: send packet-switched data from the core network system to a wireless access system for communicating to a mobile station (page 1, lines

5-8); determine if a send buffer in the wireless access system to store the data is about to become empty (page 18, lines 8-12); and if the send buffer is about to become empty, send filler data to the wireless access system to maintain a connection between the wireless access system and the mobile station (page 16, lines 31-36, page 17, lines 1-9).

Forssell fails to explicitly disclose the core network determining if the send buffer is the wireless access system is about to become empty and the core network sending filler data to the wireless access system.

However, Bourlas teaches a core network (base station) determining if the send buffer is the wireless access system is about to become empty and the core network sending filler data to the wireless access system (col. 25, lines 37-56; col. 18, lines 45-51).

Therefore, it would have been obvious to one skilled in the art to include a core network that determines if the send buffer is nearly empty and sends filler data, in order to maintain the logical connection with the mobile station.

Regarding claim 19, Forssell teaches executing instructions to cause the system to send filler data to maintain a temporary block flow (page 16, lines 31-36, page 17, lines 1-9).

Regarding claim 20, Forssell teaches the same limitations as described above in the rejection of claim 11, for executing instructions to cause the system to further start a timer to provide a time period during which the filler data is to be sent to the wireless access system.

Regarding claim 21, Forssell teaches executing instructions to cause the system to further determine if the mobile station is subscribed to a first service level (page 3, lines 29-35; page 11, lines 27-30) and to send the filler data in response to determining the mobile station is subscribed to the first service level (page 16, lines 22-35; service level represented by delay sensitive data).

Regarding claim 24, Forssell teaches a core network system serving as a GPRS support node (SGSN) (Fig. 1b).

Response to Arguments

4. Applicant's arguments with respect to claims 9 and 18 filed 9/27/05 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's arguments with respect to claims 1 and 22 filed 9/27/05 have been fully considered but they are not persuasive. Examiner contends Forssell (WO 00/33498) teaches "determining if a mobile station is subscribed to a first level of service or a second level of service". WO'498 discloses different service levels to which a mobile station is subscribed. These service levels are identified by different data transmission parameters utilized by the mobile stations, which indicates the type of service level/parameters the mobile station is transmitting over and thus subscribed to. The different transmission parameters signify the different service levels.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-3185. The examiner can normally be reached on Monday - Friday 8:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rhonda Murphy
Examiner
Art Unit 2667

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PERMISSORY PATENT EXAMINER
12/12/05